

**REMARKS**

Claims 1-15 are pending in this application. Reconsideration is respectfully requested.

Applicant gratefully acknowledges the courtesies extended to Applicant's representative at the personal interview conducted November 12, 2004. The substance of the interview is incorporated in the following remarks, which constitute Applicant's record of the Interview.

The Office Action objects to Figures 1-12 because they are not designated by an legend such as --Prior Art--. Applicant herewith submits replacement sheets wherein Figures 1-12 are designated by the legend --Related Art--, in accordance with the specification. Accordingly, Applicant respectfully requests that the objection to Figures 1-12 be withdrawn.

The Office Action objects to Figures 17, 18, 19, 21, 23, 24, 36, 43, 44, 47, 49, 51, 54, 56, 59, 65, 69, 70 and 71 for including reference characters not mentioned in the description. At the personal interview, Applicant's representative explained that the reference numbers are mentioned in the brief description of the drawings, and for Figure 19, each of the elements 1118, 1120, 1122, 1124, 1126, 1128 and 1130 are mentioned in the specification on pages 24-25. Accordingly, as agreed to during the personal interview, Applicant respectfully requests that the objection to the drawings be withdrawn.

The Office Action rejects claims 1 and 5-15 under 35 U.S.C. §103(a) over WO 99/01828 to Kempe in view of Naik (Efficient Computation of Unique Input/Output Sequences in Finite-State Machines) and in further in view of Monteiro et al. (Finite State Machine Decomposition For Low Power). This rejection is respectfully traversed.

The Office Action asserts that Kempe discloses "preprocessing the ambiguous FST to create a fully-unfolded (minimal) FST" on page 9, lines 10-12 and 27-30. However, page 9, lines 10-12 discloses that "s-type transducers with class subsequences that have been

generated as described in D.3(a) or D.3(b) above, are in general not complete on their input side. They do not accept all possible ambiguity class sequences. This, however, is necessary for a transducer used to disambiguate class sequences of any corpus since the new corpus can contain sequences not encountered in the training corpus." Page 9, lines 27-30 disclose "A transducer completed in this way disambiguates all subsequences known to the principle incomplete s-type model exactly as the underlying HMM does, and all other subsequences as the auxiliary n-type model does." Nowhere in these passages does Kempe disclose "preprocessing the ambiguous FST to create a fully-unfolded FST," as recited in claim 1 and similarly recited in claim 11.

Furthermore, the Office Action asserts that Figure 3 of Naik discloses "if the arc is outside of an ambiguity field, copying the arc to the unambiguous FST, and copying the arc to the fail-safe FST while replacing the corresponding input symbol with the corresponding output symbol," as recited in claim 1 and similarly recited in claim 11. However, Applicant submits that Figure 3 only shows machine G2 and its projections. Nowhere in Naik is machine G3 disclosed as being an unambiguous FST, or a fail-safe FST. Furthermore, Figure 3 discloses only a single machine G2, not an unambiguous FST and a fail-safe FST. Moreover, the arcs (projections) shown in Figure 3 are not disclosed as being inside or outside of an ambiguity field, notwithstanding the Office Action assertion that "projections G2(1/1), and G2(0/0), projection G2(1/1) contains the arcs within the ambiguity field, and G2(0/0) contains the arcs from the arcs outside the ambiguity field."

For similar reasons, Figure 3 of Naik also does not disclose "if the arc is inside an ambiguity field, copying the arc to the unambiguous FST while replacing the corresponding output symbol with a diacritic, and copying the arc to the fail-safe FST while replacing the corresponding input symbol with the diacritic," as recited in claim 1 and similarly recited in claim 11.

As agreed to during the personal interview, Kempe and Naik neither disclose nor suggest the above-quoted portions of claims 1 and 11. As set forth in MPEP §2143.03, "to establish a *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981.

Monteiro discloses a clock-gating technique using finite state machines, which reduces the power consumed by a circuit. Monteiro does not remedy the deficiencies of Kempe and Naik with respect to claims 1 and 11. Claims 5-10 depend from claim 1, and claims 12-15 depend from claim 11, and are patentable for at least the reasons set forth above with respect to claims 1 and 10 as well as for any additional features they recite. Accordingly, Applicant respectfully requests that the rejection of claims 1 and 5-15 under 35 U.S.C. §103(a) be withdrawn.

The Office Action rejects claims 2-4 under 35 U.S.C. §103(a) over Kempe in view of Naik in view of Monteiro and further in view of Roche (Factorization of Finite-State Transducers). This rejection is respectfully traversed.

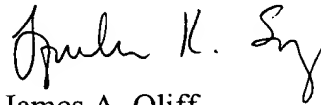
Roche discloses an algorithm for turning a finite-state transducer into the composition of two deterministic finite-state transducers such that the combined size of the derived transducers can be exponentially smaller than other known deterministic constructions.

Applicant submits that Roche does not remedy the deficiencies of Kempe, Naik and Monteiro with respect to claim 1. Claims 2-4 depend from claim 1, and are patentable for at least the reasons set forth above with respect to claim 1, as well as for the additional features they recite. Accordingly, Applicant respectfully requests that the rejection of claims 2-4 under 35 U.S.C. §103(a) be withdrawn.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-15 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



James A. Oliff  
Registration No. 27,075

Jaquelin K. Spong  
Registration No. 52,241

JAO:JKS/tbh

Attachment:  
Replacement Sheets (Figs. 1-12)

Date: November 17, 2004

**OLIFF & BERRIDGE, PLC**  
**P.O. Box 19928**  
**Alexandria, Virginia 22320**  
**Telephone: (703) 836-6400**

<p>DEPOSIT ACCOUNT USE AUTHORIZATION Please grant any extension necessary for entry; Charge any fee due to our Deposit Account No. 24-0037</p>
--

**Amendments to the Drawings:**

The attached replacement drawing sheets make changes to Figs. 1-12. The attached sheets replace the original sheets with Figs. 1-12.

Attachment: Replacement Sheets (Figs. 1-12)